Useful Census Bureau Report: The State and Direction of Addressing

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The Census Bureau Geography Division is responsible for managing the Bureau's nationwide address-related data resources, including street centerlines with address range information (TIGER), and the Master Address File (MAF), a national address list. These two data sets form the geographic foundation for both the census-by-mail and in-the-field survey efforts.

The Bureau recently commissioned five studies* relating to its Geographic Support System (GSS) Initiative that will be used to support the 2020 census and the ongoing annual American Community Survey. One of these, Reporting the State and Anticipated Future Directions of Addresses and Addressing (M. Dobson, D. Cowen, and S. Guptill; Jan. 2011) is a particularly thorough discussion on address data issues and strategies that is applicable from local through national scales.

Not surprisingly, this report concludes that local data sources have the most complete and current address data. Those closest to communities have the best opportunity to make sure the data is complete and to keep up with changes. As the primary application of local address data is facilitating E911 response, lives and property depend on the quality of this data everyday. The challenge, for the Bureau is to find a way to aggregate existing, quality local address data and to explore options for potentially supporting local addressing efforts.

Pilot projects, like the NTIA's State Broadband Mapping program, are funding un-siloed address data collection efforts wherein address data can be used to meet the needs of the funding agency but the benefit can be greatly multiplied as state and local government can also utilize this data to meet their mapping and analytical needs for coordinating local services delivery. Sadly, citing Title 13, the Bureau has not yet found a way to share address level data that it maintains to conduct the census.

An NTIA-like approach would make a lot of sense for Census. And in adopting a similar model, the Bureau can build on its history of successfully involving local and state government in its efforts to build nationwide data resources to support the census, while benefiting many others. Greatly reducing the Bureau's costly pre-census address canvassing workload has great savings potential, and fostering and utilizing locally maintained address data, especially in rural areas, is an integral part of the formula for realizing these savings.

While the Bureau has netted efficiencies from its mail-targeted census efforts, 43 million of 150 million USPS mail delivery points are rural addresses where the delivery address (PO Box or Highway Contract Routes) are often different from the more commonly referenced physical address of the residence. And as the number of rural addresses in the USPS database increased by 10 million units from 2001 to 2010, its clear that this issue is here to stay.

Again, this new report is quite comprehensive in its discussion of the geography and implementation of vital addresses data resources. It is an excellent reference for anyone whose organizational and business outcomes depend on or could be enhanced by a robust knowledge of physical addresses and their locations.

Report topics include:
- Types of addresses and Census needs (p. 5-9)
- The relationship between Census and US Postal Service address data holdings and USPS's Delivery Sequence File (DSF) and HCR data specifications (p. 6-7, 65-67, 102-105)
- Roles for aerial and street-view imagery (p. 19-32)
- The value of parcel data (p. 9-18)
- Address related data standards (US: p. 33-37; EU p. 37-45; ISO: p. 45-50)
- Discussion of the potential for crowd sourcing and address data, including discussion of hybrid systems that incorporate crowd sourced data into authoritative or commercial products (p. 51-65)
- The direction and progress of E911 address datasets (p. 67-73)
- Potential sources of address data (commercial and public, including a list of states known to be actively working on address data resources (p. 74-97)
- E911 definitions (p.108-109)
- NTIA State Broadband Mapping (SBDD) Program: address point data, activity plan summaries by state (p. 110-113)

Notes: * All five commissioned reports on GSS Initiative topics are downloadable. The other four topics are: 1) Handheld computers for field data collection; 2) Measuring data quality; 3) Developing technologies; and 4) Digital exchange and integration of address and spatial data.